



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,006	10/17/2003	Russell T. White JR.	END920030046US1	4391

23550 7590 01/24/2007
HOFFMAN WARNICK & D'ALESSANDRO, LLC
75 STATE STREET
14TH FLOOR
ALBANY, NY 12207

EXAMINER

LEVINE, ADAM L

ART UNIT	PAPER NUMBER
----------	--------------

3625

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/688,006

Applicant(s)

WHITE, RUSSELL T.

Examiner

Adam Levine

Art Unit

3625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 13 November 2006, has been entered.

Response to Amendment

Applicant has filed amendments and remarks dated November 13, 2006, in reply to the final office action mailed June 2, 2006, and the advisory action mailed October 12, 2006. Applicant has amended independent claims 1, 8, 14, and 19, and dependent claim 7. Claims 1-22 are currently pending. All pending claims, amendments, and remarks are considered in this office action.

Pertaining to claim objections in the previous office action

Claim 7 was objected to because the language was unclear. The examiner suggested amended language and applicant has adopted the suggested language. The objection is withdrawn.

Response to Arguments

Pertaining to rejection under 35 USC §102(b) in the previous office action

Applicant's arguments filed November 13, 2006, have been fully considered but they are not persuasive. Applicant argues that the prior art does not "indicate that queries that dynamically generate a page based on the result of the query are used to navigate the browse tree." For purposes of response, the examiner assumes this refers to the step of dynamically generating a page based on the result of the query (please see rejection under 35 USC §112 below). Applicant supports this argument by noting that the prior art does not actually use the term "query" and by declaring that the prior art does not "indicate dynamic generation of a page." With regard to the term query, this was addressed in the previous advisory action (see Paper #20061004). For applicant's convenience, those remarks are reprised here.

The remarks indicate that applicant has a significantly more restrictive and specific understanding of the word "query" than is suggested by the claims or the specification. A "query" is a request for information, a question (see at least Paper #20061004, PTO-892: Item U page 563, Item V page 955). Microsoft's computer dictionary defines "query" as "1. The process of extracting data from a database and presenting it for use. 2. A specific set of instructions for extracting particular data repetitively." Thus automatically generating a query is automatically generating instructions for extracting data, or automatically requesting data. The most restrictive definition is still broad enough to encompass both the prior art and the present application. Applicant does nothing to narrow this definition.

The prior art also indicates dynamic generation of a page (see at least column 2 lines 25-36, column 7 lines 5-24). These passages also indicate that the dynamic generation of a page occurs based on the result of a query. For more, please see the following rejection under 35 USC §102(b). Please note that the portion cited by applicant, column 7 lines 17-19, is not representative of the subject matter in the remainder of the cited portion, but merely refers to a minor aspect of the results presented on the dynamically generated page. The page is dynamically generated based on the results of a query, and among those results appear featured items and categories. The featured items and categories are themselves represented by hyperlinks that provide a direct path to the detail page with further information on those specific items.

Regarding the automatic generation of queries, in recalling an item the query is automatically generated for each level of the hierarchical structure. This is performed by both the present invention and the prior art as the query levels of the item are recalled from storage and/or replicated recursively in order to present the new query in process while bringing the highlighted popular item to the front of a category or subcategory in which the item appropriately belongs. Spiegel refers to its hierarchical structure as a browse tree, and to query levels as nodes (which can refer to either categories or items). Spiegel describes automatically identifying nodes and calling them to attention by elevating them along child-parent paths. These paths are the hierarchical query levels described in the present application (see at least column 1

lines 60-66, column 2 lines 25-30, 41-43). This means that the each level of the query is automatically generated and repeated.

With regard to applicant's arguments pertaining to database structure and inherency, it is noted that illustrations appearing in the figures of the prior art include both relational and hierarchical structures. In addition, the examiner made no inherency assertion in the previous action. It is therefore not understood to what applicant is referring. Applicant in arguing against inherency fails to address that which is explicitly stated in Spiegel. The cited passages of Spiegel disclose storing the operations performed by a user to select an item in the hierarchical structure and analyzing the stored operations (see at least figs.2-4, column 6 lines 5-20. Also, see at least Figs.1B,5,7,9; column 9 line 64-column 10 line 26).

Applicant is reminded that the examiner cites columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the claims, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. **Claims 1,8,14, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 1,8,14, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the operative element that “dynamically generates a page based on the result of the query.”

The difficulty with the amended claim language is that it cannot be determined whether it is the query that dynamically generates a page, or the hierarchical structure that dynamically generates a page. It is the examiner's understanding that neither of these elements could itself generate the page but rather that one or the other could cause the page to be dynamically generated by another element and influence the form and content of the generated page. It is suggested that in the method claims, the dynamic generation of the page based on the result of the query would itself be a separate method step, rather than the current phrasing that appears to merely modify the description of the query or the structure. In the system claim the difficulty is extended to the storage system. Is it the storage system that dynamically generates the page? In the computer program product claim the difficulty is extended to the program

code. Does the program code dynamically generate the page? Upon further inspection of claim 19, another grounds for rejection has also become evident.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claim 19 is rejected under 35 U.S.C. 101 because data structures not claimed as embodied on computer-readable media and not implemented in a computer apparatus are descriptive material.

The claim is directed at a computer program product on a recordable medium. The program product is not claimed as embodied on a computer-readable medium and implemented in a computer apparatus. Because the claim is directed at the program product itself, stored on a recordable medium, it appears to be attempting to claim the program itself rather than the method embodied thereon or its embodiment within a medium that is part of a functioning system or apparatus.

Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer that permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer

element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions. MPEP 2106 IV B 1 (a).

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs that impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d

at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

The Applicant is claiming a computer program product on a recordable medium. Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature that constitute "descriptive material." Abstract ideas, Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58, are not patentable. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs that impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

Both types of “descriptive material” are nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir.1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). When nonfunctional descriptive material is recorded on some computer-readable medium, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make it statutory. Such a result would exalt form over substance. *In re Sarkar*, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) (“[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under 101, the claimed invention, as a whole, must be evaluated for what it is.”) (quoted with approval in *Abele*, 684 F.2d at 907, 214 USPQ at 687). See also *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) (“form of the claim is often an exercise in drafting”). Thus, nonstatutory music is not a computer component and it does not

become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. **Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Spiegel (Paper #051102; US Patent No. 6,466,918).**

Spiegel teaches all the limitations of Claims 1-22. For example Spiegel discloses a method for storing items in a hierarchical structure, allowing users to select items within that structure, identifying frequently purchased items, and elevating them for display on a higher level in the structure than that on which they would normally appear (see at least Abstract, Figs. 1A-4, column 1 lines 5-15). Spiegel further discloses:

- storing items in a hierarchical structure: wherein each of the items is located using a query for each level of the hierarchical structure (see at least Abstract, Figs. 1A-8, column 1 lines 25-59); dynamically generating a page based on the result of the query (see at least fig.1A, column 2 lines 25-36, column 7 lines 5-24, 59- column 8 line 8).
- identifying at least one high frequency item: wherein the at least one high frequency item is an item that is frequently purchased (see at least Abstract, Fig.

Art Unit: 3625

3, column 1 lines 7-13, column 1 line 60 – column 2 line 36, column 6 lines 5-20); maintaining a record of the frequency that each of the items has been purchased (see at least Abstract, column 2 lines 12-24, column 3 lines 13-29, column 6 lines 5-20, 30-39. Please note: this element is interpreted as referring to the storage of information regarding the frequency of purchase of each item.); a separate record of the frequency of purchase of each of the items is maintained for each of a plurality of groups of users (see at least column 7 line 59-column 8 line 7, column 9 line 64 – column 10 line 16.).

- automatically generating the query for each level of the hierarchical structure: to display the at least one high frequency item on a high level page (see at least Abstract, Figs. 1A,2-4,11; column 1 line 60 – column 2 line 4, column 2 lines 26-36, column 6 lines 5-20).
- presenting the item to an administrator: selecting at least one high frequency item for display on the high level page (see at least Abstract, Figs. 1A,2-4,11; column 1 line 60 – column 2 line 4, column 2 lines 26-36, column 6 lines 5-20).
- storing the operations performed by a user to select an item in the hierarchical structure: analyzing the stored operations, obtaining the query for each level based on the stored operations (see at least Abstract, Figs. 1-4,5,7,9,11; column 1 line 60 – column 2 line 4, column 2 lines 26-36, column 6 lines 5-20, column 9 line 64-column 10 line 26.).

Art Unit: 3625

- an identification system for identifying a user: (see at least column 2 line 46 – column 3 line 12, column 6 line 40 – column 7 line 5, column 11 lines 34-50, column 12 line 61 – column 13 line 7).

Pertaining to system and computer program product Claims 14-18 and 19-22

Rejection of Claims 14-18 and 19-22 is based on the same rationale as noted above.

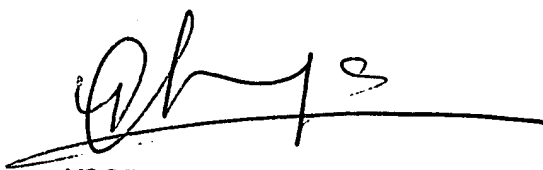
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam Levine whose telephone number is 571.272.8122. The examiner can normally be reached on M-F, 8:30-5:00 Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Smith can be reached on 571.272.6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adam Levine
Patent Examiner
January 21, 2007



YOGESH C. GARG
PRIMARY EXAMINER
TECHNOLOGY CENTER 3600